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Remarks

We have amended claim 26 to clarify that the claimed device is added to a body of water. Support for the amendment is found throughout the specification, e.g., Figure 4. We have further amended claim 26 to specify that at least a portion of the metal chlorite and acid forming component must be in direct contact, with support being found in Example 1, page 26, line 23 to page 27, line 2; Example 2, page 27, line 25 to page 28, line 2; Example 3, page 28, lines 19-24; Example 4, page 29, lines 4-9; Example 5, page 29, lines 16-20; Example 6, page 30, lines 5-9; and Example 7, page 30, lines 14-22.

We respectfully submit that the amended claim 26, and all claims depending therefrom, clearly define an invention that is novel and non-obvious over the Derwent English abstract No. 1997-311227 of Chinese published patent specification 1104610A, because the reference fails to teach or suggest direct contact between a metal chlorite and acid forming component. The translated Chinese abstract teaches that sodium chlorite reactant must be encapsulated by Chinese wax, stearic acid, bees wax or paraffin wax. The barrier created by encapsulation obstructs the reaction between the sodium chlorite and the tartaric or oxalic acid. The production of chlorine dioxide is accordingly hindered, or even prevented in areas where the barrier cannot be breached by the reaction medium, i.e., water. Furthermore, encapsulation is a relatively costly processing step, and encapsulation of a strongly oxidizing material, such as sodium chlorite, with combustible organic materials, like waxes, is dangerous due to the potentially explosive reaction that can occur between the two materials. In contrast, the present invention requires direct contact by at least a portion of the reactants (metal chlorite and acid forming component), thereby promoting chlorine dioxide production, saving costs, and avoiding hazards relating to the prior art encapsulation.

In light of the forgoing, we respectfully submit that the claims, as amended, define a novel and non-obvious invention that fully merits patent protection. We therefore respectfully

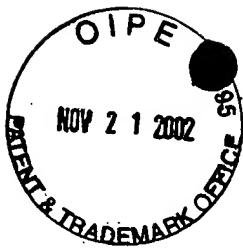
request that the entire application be allowed at an early date. If there remain any issues that the Examiner believes can be resolved by discussion, the Examiner is cordially invited to contact applicant's undersigned representative at the telephone number provided below.

Respectfully submitted,



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Version with markings to show changes made

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26. (amended) A device [for] capable of producing an aqueous solution of chlorine dioxide when said device is placed into water, the device comprising a water-permeable membrane defining at least in part an enclosed space containing a mixture of at least one metal chlorite and at least one acid forming component, at least of portion of said at least one metal chlorite and at least one acid forming component being in direct contact, said acid forming component being selected from the group consisting of water soluble acids, water soluble acid salts, synthetic molecular sieves, acid ion exchange resins, acid treated clays and acid treated calcined clays, and wherein said metal chlorite and said acid forming component are such that they will react with each other in the presence of water but not in the substantial absence of water to produce chlorine dioxide, said membrane [being comprised of] comprising a material which permits: (a) [the] controlled passage of liquid water and/or water vapor [to pass through the membrane] into the enclosed space to thereby allow the metal chlorite and the acid forming component to react to produce chlorine dioxide and (b) passage of the so produced chlorine dioxide [to pass through the membrane] into a body of liquid water to produce the aqueous solution of chlorine dioxide.